

REMARKS

Claims 1, 3, 5, 10, 13, 15, 17, and 19-21 have been amended to correct minor typographical errors, and other errors. Entry of these amendments under Rule 116 is appropriate because they present the claims in better condition for appeal. Claim 16 has been cancelled.

Claims 1-3, 5, 9-11, 13-15, 17, and 19-20 are patentable over Todokoro, et al., U.S. 6,084,238 (hereinafter "Todokoro I"), because the cited reference fails to teach or suggest each and every element as set forth in the present claims.

Claims 1 and 13 are patentable inasmuch as the cited reference fails to teach the feature of "having deflectors operable to apply deflection fields to the primary electron beam at spaced-apart locations along the column, at least a first of said locations being located upstream of an inner lens detector assembly and at least a second of said locations being located downstream of said inner lens detector assembly", as recited in claims 1 and 13. The Final Office Action (page 3) cites Todokoro I as teaching "upper and lower deflectors 15 and 16, located upstream and downstream of interior (in-lens) detectors 33 and 34 respectively. Col. 8, line 22-34." In other words, Todokoro I teaches deflector 15 located upstream of lower detector 34 and deflector 16 located downstream of upper detector 33, where upper detector 33 and lower detector 34 are different detectors. Even if true, Todokoro I fails to teach "deflectors operable to apply deflection fields ... at least a first of said locations being located upstream of an inner lens detector assembly and at least a second of said locations being located downstream of said inner lens detector assembly" (emphasis added), as recited in claims 1 and 13. In the present invention, the first and second of the said locations are referenced with respect to the same inner lens detector assembly.

For a complete analysis, the Todokoro I reference may be interpreted in three ways, none of which teach the present feature of claims 1 and 13: (1) If upper detector 33 is considered an inner lens detector assembly, then Todokoro I fails to teach a deflector operable to apply deflection fields at a location located upstream of the inner lens detector assembly. (2) If lower detector 34 is considered an inner lens detector assembly, then Todokoro I fails to teach a deflector operable to apply deflection fields at a location located downstream of the inner lens detector assembly. (3) If upper detector 33 and lower detector 34 together are considered an

inner lens detector assembly, then Todokoro I fails to teach a deflector operable to apply deflection fields at locations located either downstream or upstream of the inner lens detector assembly. Hence, the present feature is not taught by Todokoro I. For at least the foregoing reasons, claims 1 and 13 are patentable over Todokoro I. Because claim 1 is patentable, claims 2-3, 5, and 9-11 are patentable by virtue of their dependency on claim 1. Because claim 13 is patentable, claims 14-15, 17, and 19-20 are patentable by virtue of their dependency on claim 13.

Claims 4, 12, and 21 are patentable over Todokoro I in view of Todokoro et al., U.S. 6,635,873, (hereinafter, Todokoro II).

Todokoro II is cited for teaching observing residue at the bottom of a high aspect ratio contact hole. Even if true, this disclosure would not cure the deficiencies of Todokoro I noted above. Accordingly, claims 1 and 13 are patentable over the combination of Todokoro I and Todokoro II. Because claim 1 is patentable, claims 4 and 12 are patentable by virtue of their dependency on claim 1. Because claim 13 is patentable, claim 21 is patentable by virtue of its dependency on claim 13.

For at least the foregoing reasons, the claims are patentable over the references cited in the Final Office Action. If there are any additional charges, please charge Deposit Account No. 19-3140.

Respectfully submitted,

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